FIG. 1

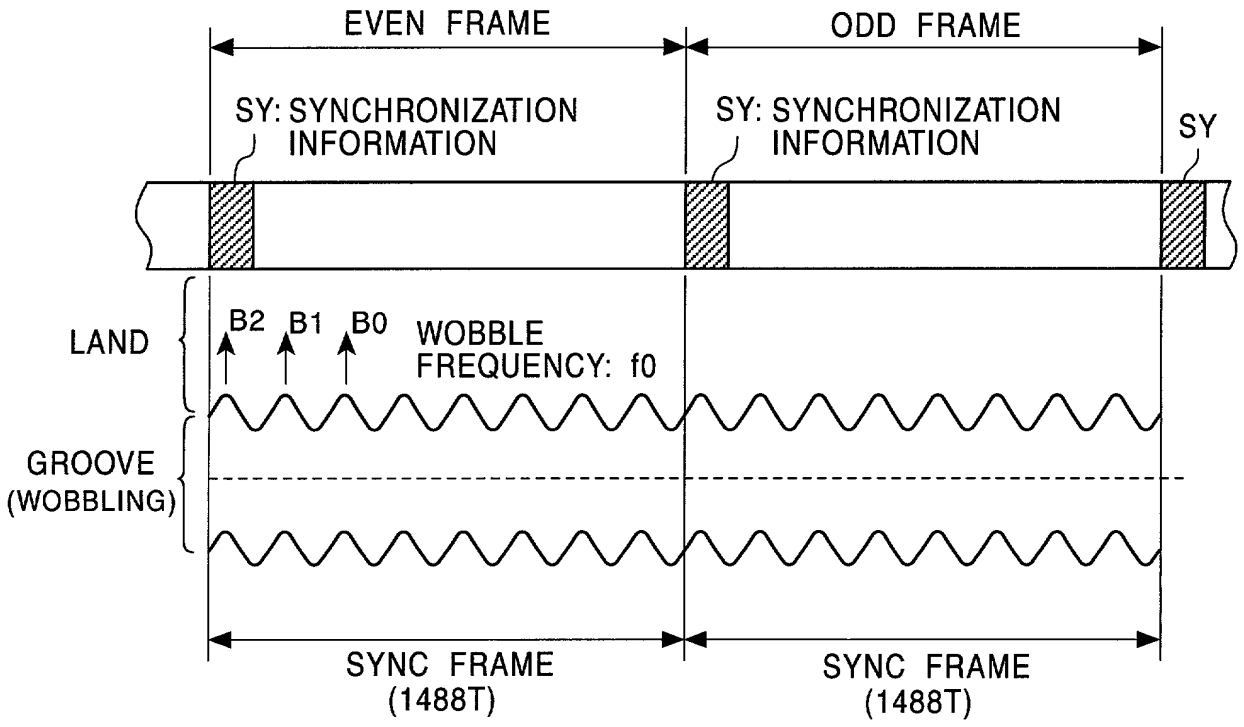
EVEN FRAME
ODD FRAME
SY: SYNCHRONIZATION INFORMATION
SY: SYNCHRONIZATION INFORMATION
SY
LAND
B2
B1
B0
WOBBLE FREQUENCY: f0
GROOVE (WOBBLING)
SYNC FRAME (1488T)
SYNC FRAME (1488T)

FIG. 2

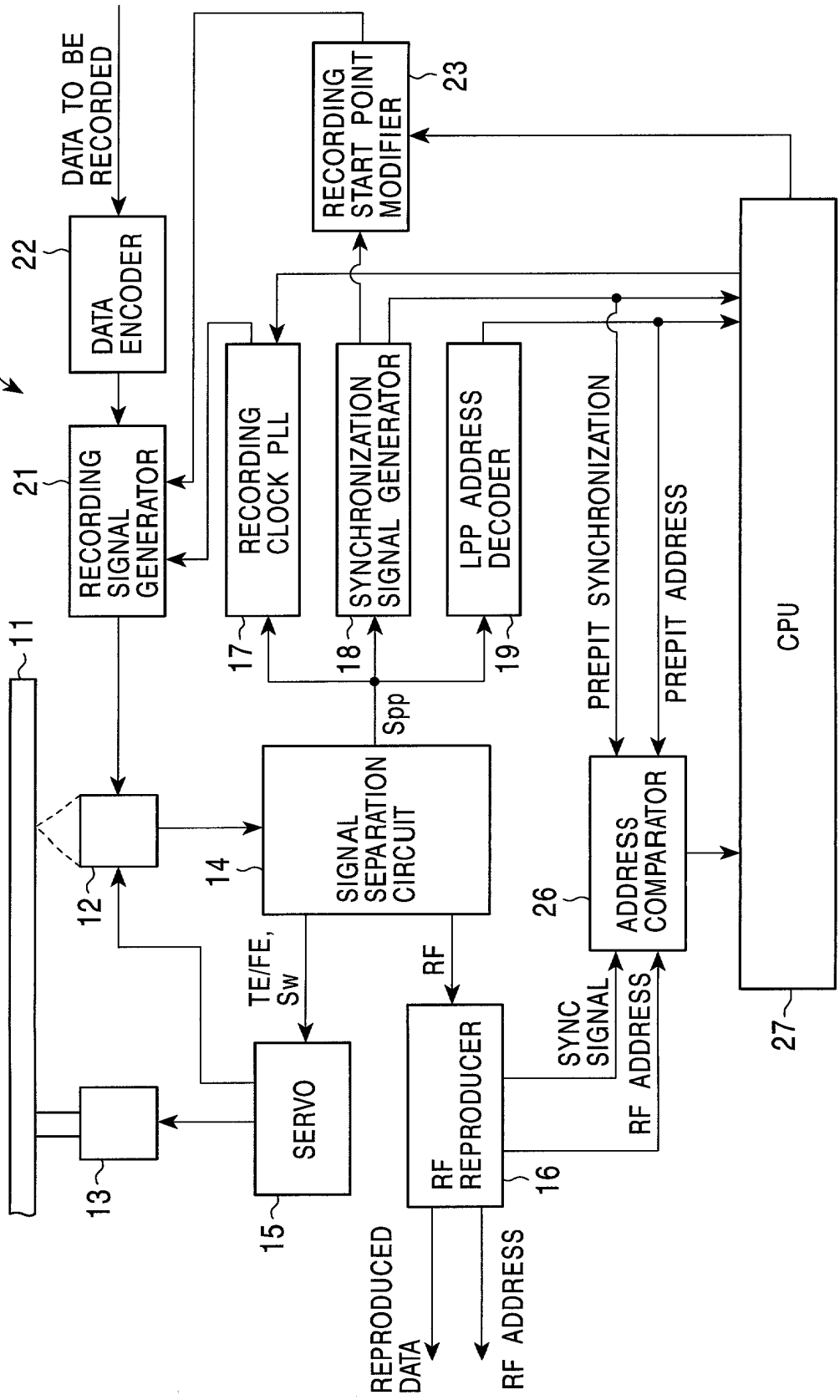
10
DATA TO BE RECORDED
22
DATA ENCODER
21
RECORDING SIGNAL GENERATOR
RECORDING START POINT MODIFIER
23
RECORDING CLOCK PLL
17
SYNCHRONIZATION SIGNAL GENERATOR
18
LPP ADDRESS DECODER
19
PREPIT SYNCHRONIZATION
PREPIT ADDRESS
CPU
27
11
12
13
14
SIGNAL SEPARATION CIRCUIT
Spp
TE/FE, Sw
RF
SERVO
15
RF REPRODUCER
16
SYNC SIGNAL
RF ADDRESS
26
ADDRESS COMPARATOR
REPRODUCED DATA
RF ADDRESS

FIG. 3

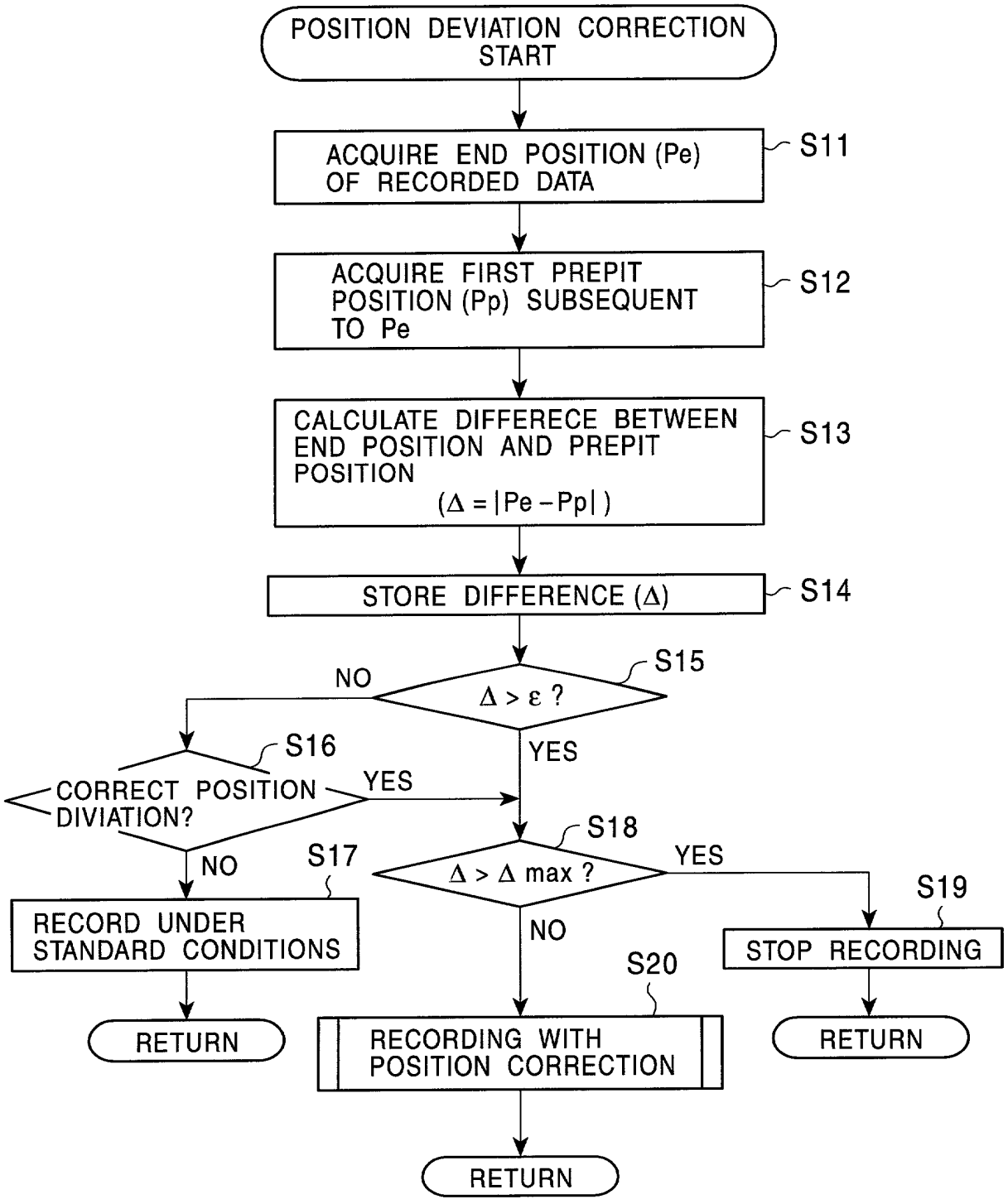
POSITION DEVIATION CORRECTION START
ACQUIRE END POSITION (Pe) OF RECORDED DATA
S11
ACQUIRE FIRST PREPIT POSITION (Pp) SUBSEQUENT TO Pe
S12
CALCULATE DIFFERECE BETWEEN END POSITION AND PREPIT POSITION
(Δ = |Pe − Pp|)
S13
STORE DIFFERENCE (Δ)
S14
S15
Δ > ε ?
NO
YES
S16
CORRECT POSITION DIVIATION?
YES
NO
S17
RECORD UNDER STANDARD CONDITIONS
RETURN
S18
Δ > Δ max ?
YES
NO
S19
STOP RECORDING
RETURN
S20
RECORDING WITH POSITION CORRECTION
RETURN

FIG. 4

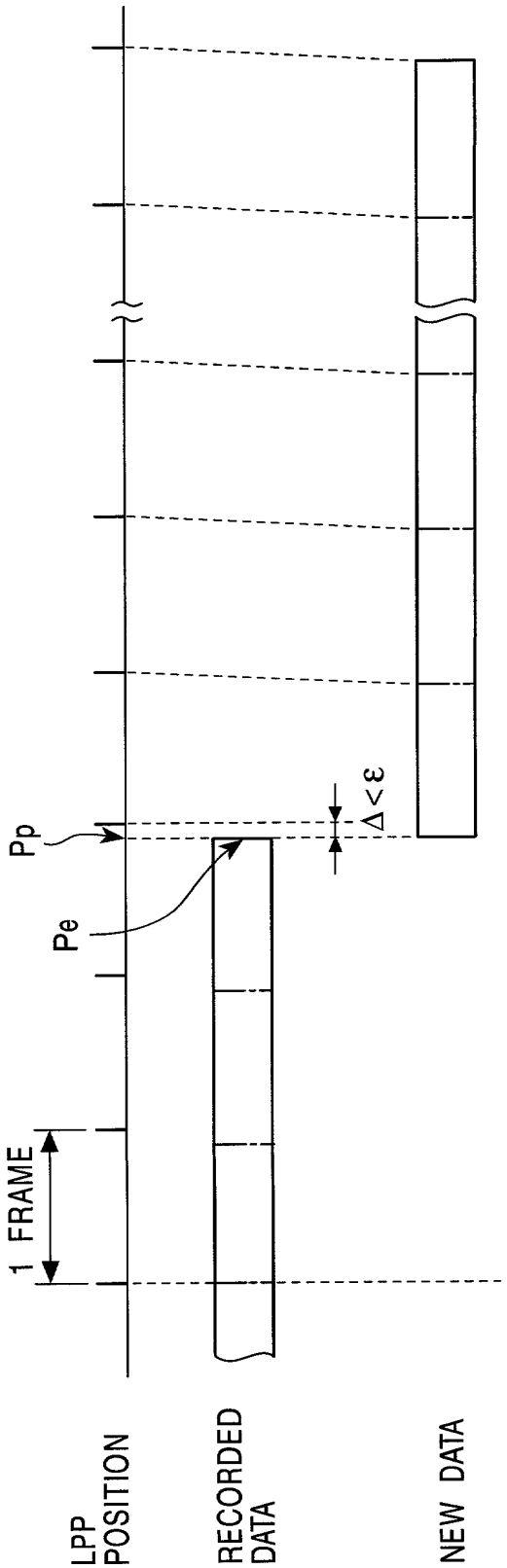

FIG. 5

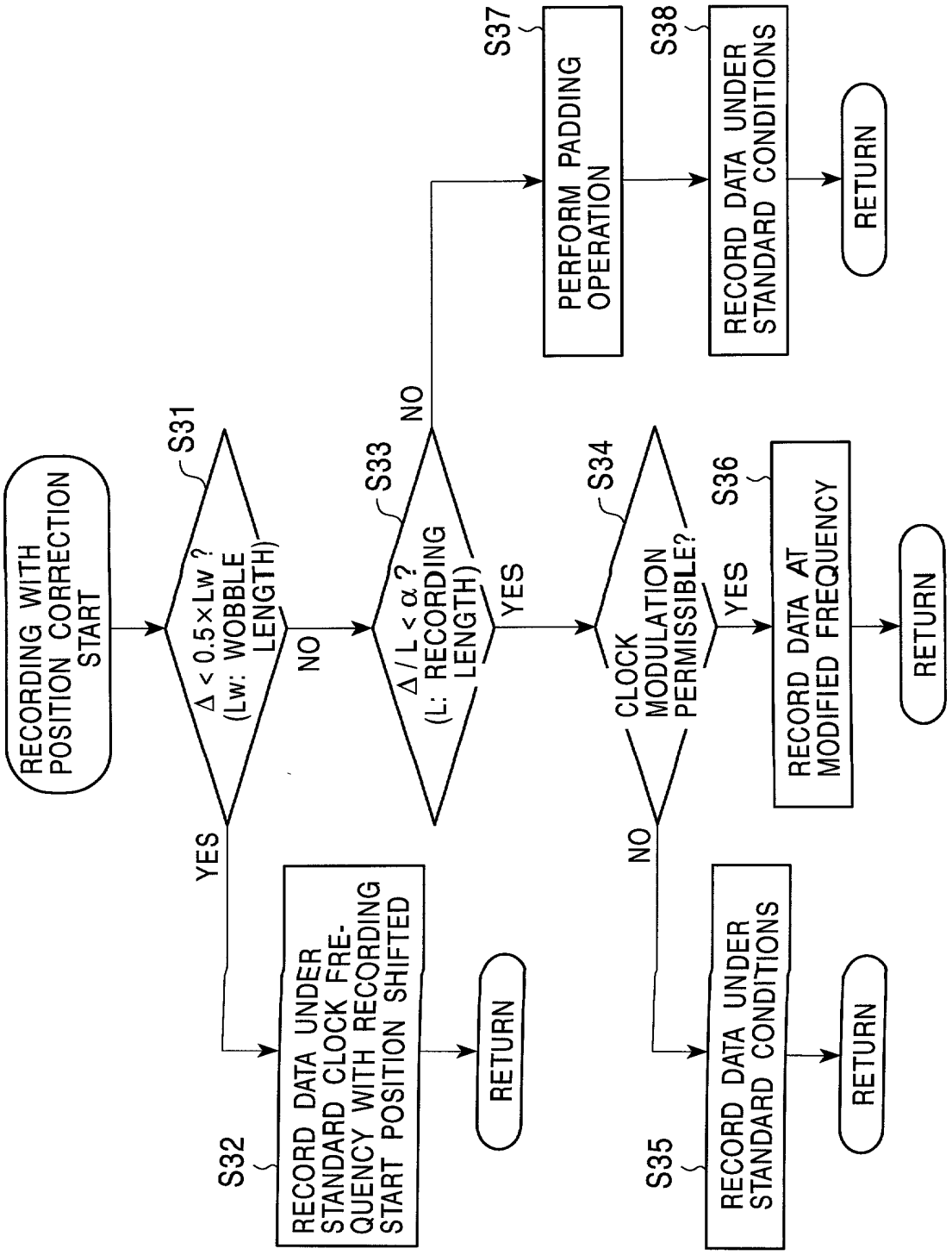
RECORDING WITH POSITION CORRECTION START
S31
Δ < 0.5×Lw ? (Lw: WOBBLE LENGTH)
YES
NO
S32
RECORD DATA UNDER STANDARD CLOCK FREQUENCY WITH RECORDING START POSITION SHIFTED
RETURN
S33
Δ / L < α ? (L: RECORDING LENGTH)
NO
YES
S34
CLOCK MODULATION PERMISSIBLE?
NO
YES
S35
RECORD DATA UNDER STANDARD CONDITIONS
RETURN
S36
RECORD DATA AT MODIFIED FREQUENCY
RETURN
S37
PERFORM PADDING OPERATION
S38
RECORD DATA UNDER STANDARD CONDITIONS
RETURN

FIG. 6

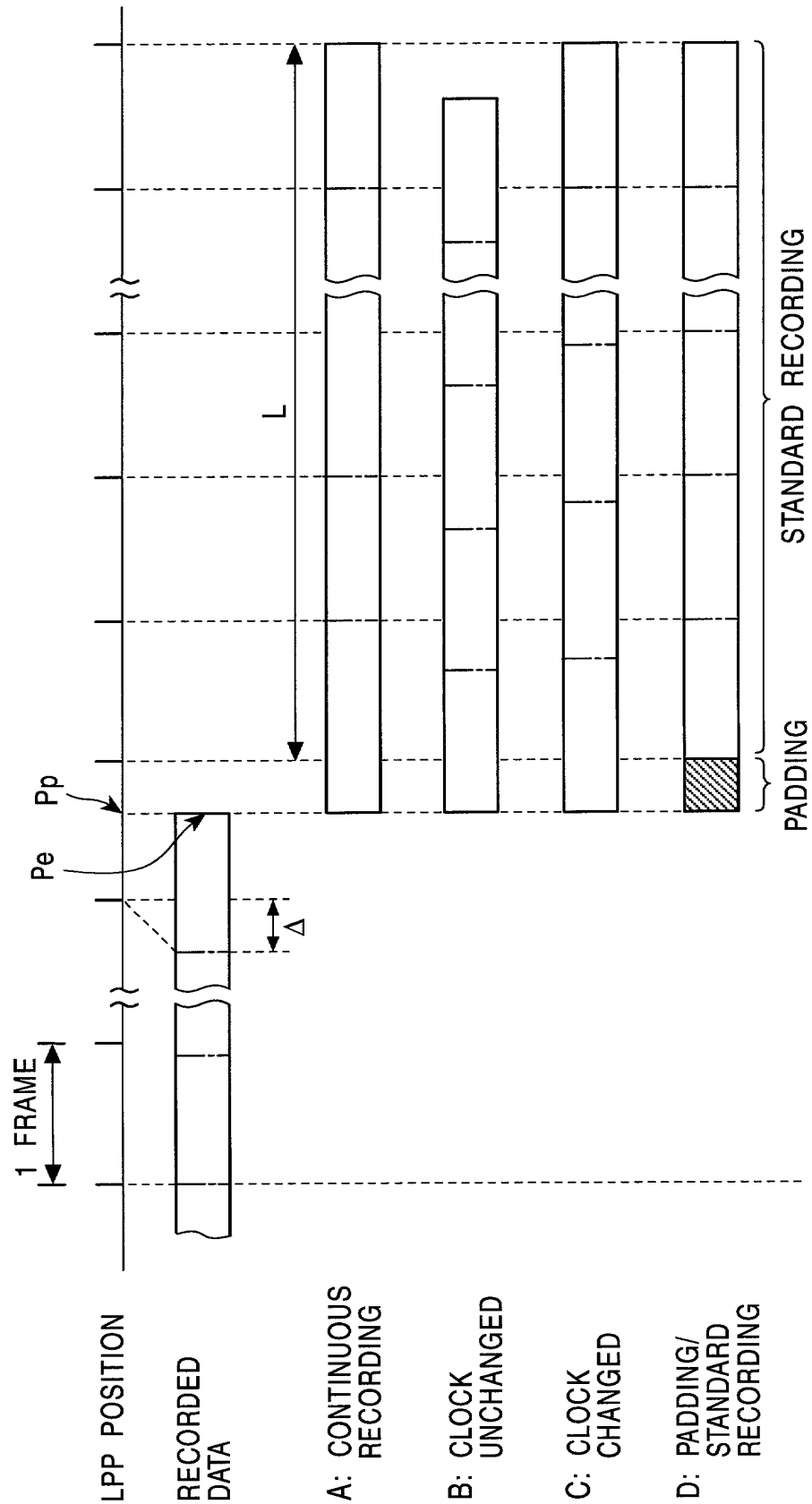
LPP POSITION
RECORDED DATA
A: CONTINUOUS RECORDING
B: CLOCK UNCHANGED
C: CLOCK CHANGED
D: PADDING/ STANDARD RECORDING
1 FRAME
Pe
Pp
Δ
L
PADDING
STANDARD RECORDING

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FIG. 7

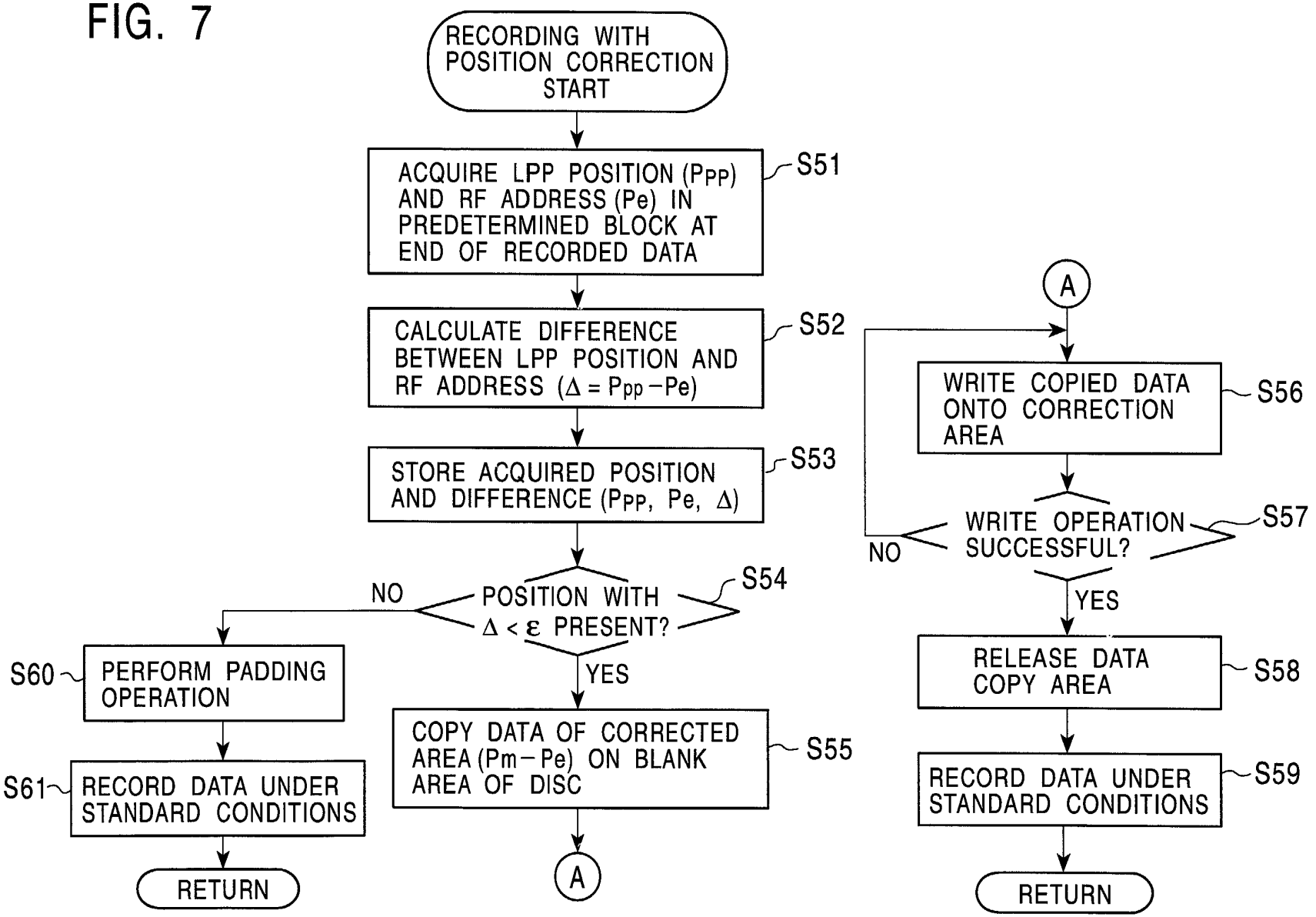
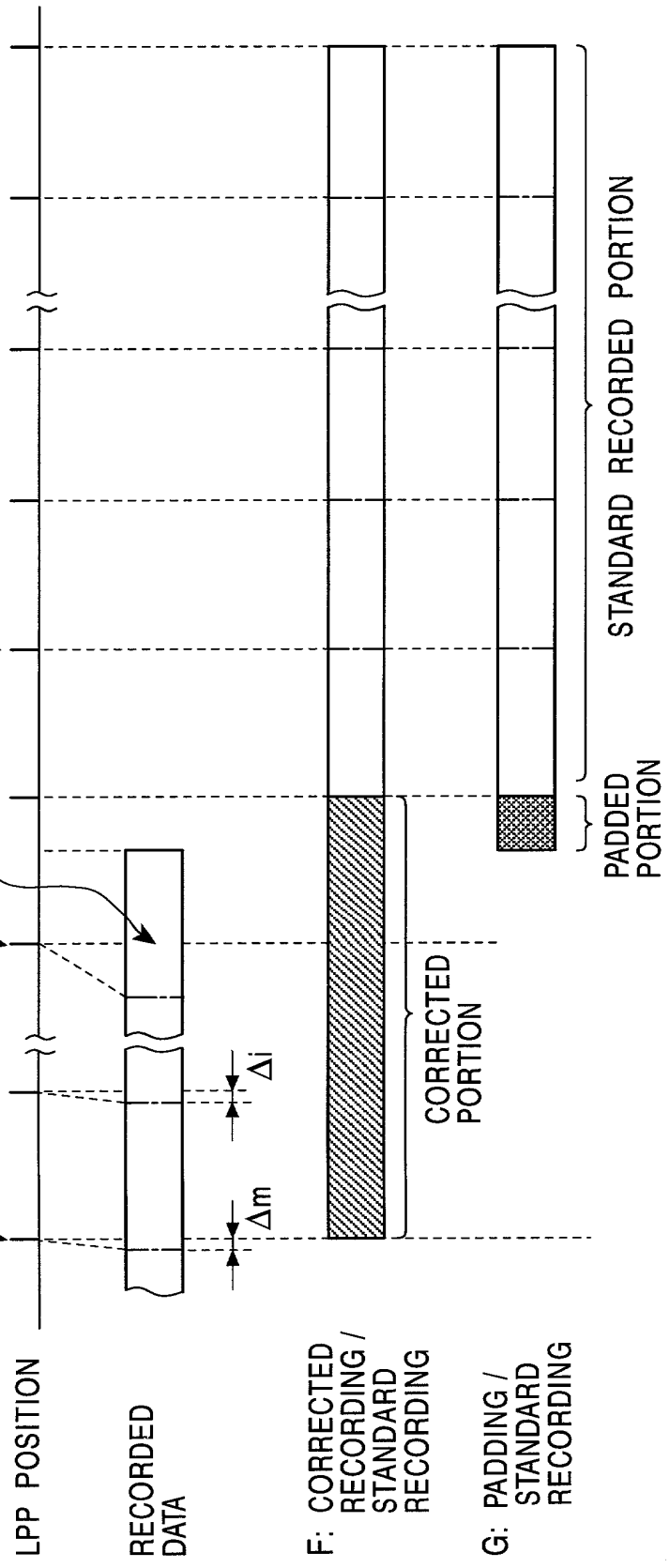


FIG. 8


LPP POSITION
RECORDED DATA
F: CORRECTED RECORDING / STANDARD RECORDING
G: PADDING / STANDARD RECORDING
Pm
Pp
Pe
Δm
Δi
1 FRAME
CORRECTED PORTION
PADDED PORTION
STANDARD RECORDED PORTION